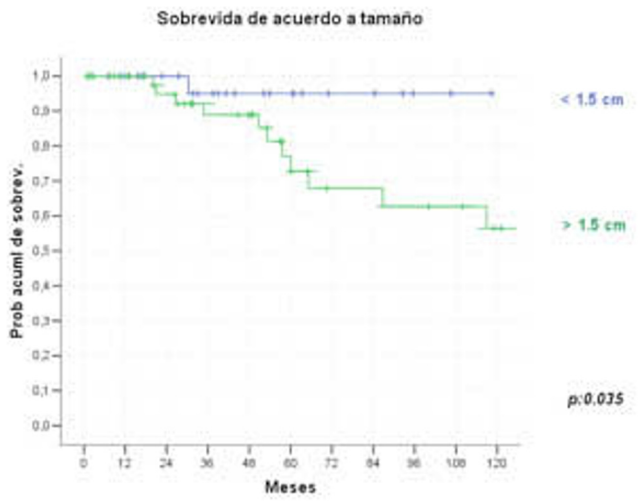

P3-256 NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6

The prognostic value of the Standardized Uptake Value (SUV) of FDG-PET in patients with stage I and II non-small cell lung cancer (NSCLC) treated by radical surgery

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Introduction: Patients with stage I or II NSCLC are candidates for surgery, resulting in 5-year survival ranging from 40 to 70%. However, even in resected stage I NSCLC, recurrence accounts for 57% of deaths! FDG-PET has become standard procedure in the diagnostic work-up of patients with (suspected) NSCLC. The aim of this study was to analyse the prognostic value of SUV of FDG-PET in patients with radical resected stage I and II NSCLC.

Methods: Primary endpoint of this retrospective study was time to recurrence after radical resection of stage I and II NSCLC in relation to the SUV on FDG-PET, pre-operatively used for staging purpose. Secondary endpoints were stage at presentation, histology, tumour size, occurrence of metastases during follow-up and overall survival in relation to the SUV. Statistics were performed by t-test and Kruskal-Wallis test.

Results: From the period of May 2003 until January 2005, 53 patients with radical resected stage I or II NSCLC were included. In 18 patients who developed a recurrence, a strong inverse correlation was seen between SUV and time to recurrence (R=0.61; p<0.005), with a cut-off value of 7.0. There was no significant relation between SUV with tumour size, histology, and the occurrence of metastases or overall survival. Patients with stage IIB NSCLC showed significant higher SUV than patients with stage I NSCLC.

Conclusion: SUV of FDG-PET shows prognostic significance in predicting the time to recurrence of radical resected stage I and II NSCLC. Prospective studies are needed to validate this predictive value. SUV could play an important role in the decision whether or not to treat patients after radical pulmonary resection for stage I or II NSCLC with adjuvant chemotherapy.

P3-257 NSCLC: Surgery Posters, Wed, Sept 5 – Thur, Sept 6

Comparison of 5-year survival rate in surgically treated IB and IIA NSCLC patients

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Background: The group of patients operated on for N1 NSCLC is considered very heterogeneous in terms of 5-year survival rates.

Therefore we have decided to compare 5-year survival rates operated on at our institution for NSCLC in pathological stage of T2N0 and T1N1.

Methods: We reviewed retrospectively the data of 696 patients who underwent the lung resection for NSCLC in our institution between January 1998 and December 2000. In all of them the complete lymphadenectomy (hilar and mediastinal) was performed along with lung resection.

Results: The stage of the disease was estimated as IB in 181 pts (26,6%) and as IIA in 44 pts (6,3%). (N1 was confirmed in 221pts out of 696 operated on). 5-year survival rate in IB and IIA groups was 61% and 54,5% respectively. We accepted the p value < 0,001 in log rank test as the statistically significant.

We have found no statistically significant influence of age (59,4% in <50 year old pts and 59,4% in >70y old pts, p<0.55), type of resection (63,8% in lobectomy, 56,3% in pneumonectomy, p<0.69), histology (59,7% in adenocarcinoma, 61,3% in squamous cell, p=0,93), T value (p=0.66), presence of neoplastic tromboli in lymphatic vessels (50% of positive, 61,1% if negative, p< 0,34) or infiltration of nerves (61% if negative, 47,1% if positive, p<0,28) on 5-year survival rate.

Among patient with N1 there was no statistically significant difference between hilar and intrapulmonary lymphatic spread - the 5-year survival rate was 60,9% and 52,7% respectively (p<0,32). Each of these two groups of hilar lymphnodes were divided into two subgroups. There was also no statistically significant difference within both of them. In hilar lymphnodes - groups 10 and 11 - the 5-year survival rate was 60.9% and 52.7% (p < 0.32) respectively and in intrapulmonary lymphnodes - groups 12 and 13 - 5-year survival rate was 51.5% and 48.3% (p<0.56) respectively.

Marginal statistically significant influence on 5-year survival rate we found comparing the sex of patients (M -55,1%, F - 61,1,%, p < 0,01) and presence of neoplastic emboli in blood vessels (52,6% if positive and 64,4% if negative, p < 0.08).

Conclusions: The lack of statistically significant differences between these two groups of patients let us suggest combining them into one group.

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What are the factors that determine prognosis of recurrent non-small cell lung cancer after curative surgery?

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Objective: Recurrence of non-small cell lung cancer (NSCLC) after surgery is difficult to prevent. Although many cases are fatal within a short time period, other individuals survive for long periods after the recurrence. The aim of this study was to investigate the factors that influence prognosis of recurrent NSCLC.